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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,980	11/11/2003	Donald Sullivan	FGT 1850 PA	2979

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KEVIN G. MIERZWA
ARTZ & ARTZ, P.C.
28333 TELEGRAPH ROAD, SUITE 250
SOUTHFIELD, MI 48034

EXAMINER	
BROWN, DREW J	

ART UNIT	PAPER NUMBER
3616	

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/605,980	SULLIVAN ET AL.	
	Examiner	Art Unit	
	Drew J. Brown	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-11 and 13-20* is/are rejected.

7)☒ Claim(s) *1-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 November 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/18/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title, abstract, and specification of the disclosure are objected to because the term *improved* is used to describe the airbag. The airbag is a new invention; therefore, the term should be omitted from the entire application. Correction is required. See MPEP § 608.01(b).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the at least one baffle vent and permeable fabric panel must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The disclosure is objected to because of the following informalities: In the brief description of the drawings, Figure 5B comprises an exploded view of the airbag in Figure 4B, but Figure 4B ceases to exist.

Appropriate correction is required.

Claim Objections

4. Claims 1-20 are objected to because of the following informalities: The term *improved* is used to describe the airbag. The airbag is a new invention; therefore, the term should be omitted from every claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 5-7, 10, and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshida (U.S. Pat. No. 6,786,505 B2). Yoshida discloses an inflatable bag 10 having at least one panel configured for defining a primary

chamber 11 positioned next to a secondary chamber 21. Gas is injected directly into the primary chamber through a primary inlet 17, which causes the primary chamber to be inflated first and applies a generally downward force to a lower-body portion of the vehicle occupant for minimizing risk of injury (column 4, lines 51-60). Then, the inflatable bag is deployed sequentially (column 6, lines 6-9) in a generally upward direction from the primary chamber (Figure 1) through the secondary inlet comprising open vent holes 33.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Staub (U.S. Pat. No. 6,059,312). Staub discloses an airbag comprising a first outer panel 4 that has a primary inlet for gas injection and a second outer panel 2 coupled to the first outer panel, with an inner panel 6 that attaches to each and extends between the two. The inner panel defines a primary 18 and secondary chamber 20, where the secondary chamber has a secondary inlet 16 for allowing gas to pass from the primary chamber to the secondary chamber. After the gas inflates the primary chamber and applies a force in a generally downward direction to the lower-body of the vehicle occupant, the airbag then inflates sequentially (column 4, lines 11-13) from the primary chamber to the secondary chamber in a generally linearly upward

direction. Staub also discloses that the primary chamber, which is formed between the first outer panel and the inner panel, has an upper sub-chamber defined in Figure 1 by the area of the primary chamber above the seam 8 and a lower sub-chamber defined by the area below the seam. The lower sub-chamber extends substantially across a width and depth of the airbag and allocates a substantial portion of the impact force to the lower body portion of the vehicle occupant. The upper sub-chamber is sized substantially smaller than the lower sub-chamber along the depth of the airbag (Figure 1), where it re-directs the impact force generally downward for providing immediate protection for an upper-body region of the vehicle occupant.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 2, 5-7, 10, 11, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (U.S. Pat. No. 5,577,765) in view of Yoshida. Takeda discloses a primary chamber 1 that applies a generally downward force to a lower-body portion of the vehicle occupant for minimizing risk of injury. The primary chamber includes an upper sub-chamber 20 and a lower sub-chamber 10, where the lower sub-chamber extends across the width and depth of the airbag 1 and allocates a substantial portion of the impact force to the lower-body

portion of the vehicle occupant. The upper sub-chamber is sized substantially smaller than the lower sub-chamber along the depth of the airbag, and it absorbs and directs the impact force generally downward according to Figure 4a while also providing immediate protection for an upper-body region of the vehicle occupant. Takeda does not disclose a secondary chamber. Yoshida, however, does disclose a secondary chamber that is inflated sequentially after the primary airbag as recited above. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Takeda by adding a secondary chamber in order to further minimize the risk of injury by providing head protection for the vehicle occupant.

11. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Hill (U.S. Pat. No. 5,813,696). Yoshida discloses the airbag as discussed above, but does not further comprise a releasable tether attached to the inflatable bag. Hill discloses a releasable tether 70 that ruptures to allow the airbag to inflate fully until the fixed tether 60 is fully extended. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yoshida to comprise at least a releasable tether as claimed to further control the timing of deployment and the shape of the airbag. This allows proper inflation characteristics for protecting the vehicle occupant. The language used with respect to maintaining the secondary chamber in a collapsed configuration until the releasable tether detaches due to pressure is considered to be functional and does not serve to distinguish over the combination of Yoshida and Hill.

12. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda in view of Yoshida as applied to claims 1, 2, 10, and 11 above, and further in view of Hill. Takeda discloses the airbag as discussed above, but does not further comprise a releasable tether attached to the inflatable bag. Hill discloses a releasable tether 70 that ruptures to allow the airbag to inflate fully until the fixed tether 60 is fully extended. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Takeda to comprise at least a releasable tether as claimed to further control the timing of deployment and the shape of the airbag. This allows proper inflation characteristics for protecting the vehicle occupant. The language used with respect to maintaining the secondary chamber in a collapsed configuration until the releasable tether detaches due to pressure is considered to be functional and does not serve to distinguish over the combination of Yoshida and Hill.

13. Claims 8, 9, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Uchida (U.S. Pub. No. 2002/0113416 A1). Yoshida discloses the claimed airbag as discussed above; however, Yoshida does not disclose the secondary inlet comprising at least one baffle vent or a permeable fabric panel integrated within the inflatable bag. Uchida discloses a secondary inlet comprising baffle vents or ports 6 that define the flow rate of the gas into the secondary airbag 3 (paragraph 32). Uchida also discloses that the gas ports 6 are integrated within the inflatable bag 1, which creates a permeable fabric panel 2. Therefore, it would have been obvious to one having ordinary skill

in the art at the time the invention was made to use a baffle vent or a permeable fabric panel as the secondary inlet in view of the teachings of Uchida. Baffle vents would allow further control of the timing and force of the flow of gas into the secondary chamber. A permeable fabric panel would do the same depending on the specific material selected for use and would also reduce manufacturing costs of the airbag since the permeable fabric panel is integrated within the inflatable bag.

14. Claims 8, 9, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda in view of Yoshida as applied to claims 1, 2, 5, 6, 10, 11, 14, and 15 above, and further in view of Uchida. Takeda discloses the claimed airbag as discussed above; however, Takeda does not disclose the secondary inlet comprising at least one baffle vent or a permeable fabric panel integrated within the inflatable bag. Uchida discloses a secondary inlet comprising baffle vents or ports 6 that define the flow rate of the gas into the secondary airbag 3 (paragraph 32). Uchida also discloses that the gas ports 6 are integrated within the inflatable bag 1, which creates a permeable fabric panel 2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a baffle vent or a permeable fabric panel as the secondary inlet in view of the teachings of Uchida. Baffle vents would allow further control of the timing and force of the flow of gas into the secondary chamber. A permeable fabric panel would do the same depending on the specific material selected for use and would also reduce manufacturing costs of the airbag since the permeable fabric panel is integrated within the inflatable bag.

Allowable Subject Matter

15. Claims 3 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J Brown
Examiner

PAUL N. DICKSON 7/20/05
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600